

Application No.: 10/528,384

Page 2

Art Unit: 3611

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-4. (canceled)

5. (currently amended) A moving carrier that sticks to a surface of an object by use of negative pressure, comprising:

a suction housing connected to a negative pressure forming device to suck in a fluid;

a suction opening member installed on the suction housing, a part of which is caused to contact the surface of the object, and which defines a pressure-reduced area together with the suction housing and the surface of the object;

a member for maintaining a predetermined distance between the suction housing and the surface of the object; and

two sets of moving units, each of the moving units including at least two sets of driving wheels;

each of the moving units being arranged on each of its right and left sides relative to its traveling direction;

each of the moving units being connected to a driving source;

one of the driving wheels being situated in a vicinity of a center of a sticking force acting on the moving carrier;

another of the driving wheels being situated away from the center of the sticking force acting on the moving carrier; and

a first frame fixed to the suction housing for supporting at least one of the moving units and a second frame for supporting the other of the moving units, said second frame being attached

Application No.: 10/528,384

Page 3

Art Unit: 3611

to the suction housing through a hinge pin so that the second frame can swing;

wherein the moving carrier can pivot at contact area as a pivot axis,

at the contact area one of the driving wheels situated in the vicinity of the center of the sticking force being contacted with the surface,

one of the moving units being driven and another moving units being not driven, and

said one of the driving wheels is situated closer to the first frame or the second frame than the another of the driving wheels.

6. (previously presented) The moving carrier that sticks to the surface of an object by use of negative pressure, described in claim 5 above;

additionally comprising a moving process that causes the moving carrier to make transverse movements in its traveling direction;

wherein actions of the moving carrier being repeated; each of the actions being comprised of a action that the moving carrier pivots at contact area as the pivot axis; at the contact area, one of the driving wheels situated in the vicinity of the center of the sticking force being contacted with the surface;

wherein one of the moving units being driven and another moving unit being not driven.

7-16. (canceled)